

Curriculum Vitae of Orhan Yenigün

DATE AND PLACE

OF BIRTH : Istanbul, 25 January 1954

ADDRESS : Bogaziçi University, Institute of Environmental Sciences, Bebek
34342 Istanbul, Turkey.

TELEPHONE : +90 212 359 7040

E-MAIL : yeniguno@retired.bogazici.edu.tr

EDUCATION and DEGREES : **Prof.** (Environmental Technology); Boğaziçi University, 1995 - .
Assoc. Prof. - (Chemical Engineering-Chemical Technologies-
Environmental Technology); Boğaziçi University, 1989.
Ph.D. - University of Wales, University College of
Swansea, U.K., Dept. Chem. Eng. 1984.
M.Sc. - University of Wales, University College of
Swansea, U.K., Dept. Chem. Eng. 1980.
B.S. - Middle East Technical University, Dept. Chem, Eng., 1978.
Lycee (Science): Robert College, 1972.

MEMBERSHIP

TO PROFESSIONAL

ORGANIZATIONS : Academy of Sciences of Turkey (Bilim Akademisi)
International Water Association (IWA): Governing
Board member;
Turkish National Committee for Water Pollution and Control:
Executive Committee member
Turkish Chamber of Chemical Engineers

PROFESSIONAL

CAREER

: University College of Swansea, Research Assistant, 1980-1984.
Boğaziçi University, Institute of Environmental Sciences,
Lecturer, 1984 - 1985;
Boğaziçi University, Institute of Environmental Sciences, Assist.
Prof. 1985-1989;
Boğaziçi University, Institute of Environmental Sciences, Assoc.
Prof., 1989 - 1995 .
Boğaziçi University, Institute of Environmental Sciences, Prof.,
1995-

TEACHING

EXPERIENCE

:

Courses taught in the Institute of Environmental Sciences since 1984:

ESC 301 The Environmental Dimension
ESC 305 Global Climate Change
ESC 501 Principles of Environmental Pollution
ESC 506 Environmental Engineering

ESC 514 Water Quality Management
ESC 518 Anaerobic Digestion
ESC 521 Air Pollution and Control
ESC 523 Advanced Air Pollution Modelling
ESC 540 Air Pollution Engineering
ESC 550 Marine Pollution
ESC 573 Environmental Oceanography
ESC 625 Environmental Impact Assessment
ESC 646 Water Quality Management
ESC 647 Industrial Waste Treatment Theory and Practice
ESC 651 Environmental Quality Laboratory
ESC 653 Chemistry of the Atmosphere

THESES SUPERVISION

23 Ph.D. Dissertations and 61 M.S. Theses supervised to completion.

ADMINISTRATIVE DUTIES:

Duties in the Past

Director of the Institute of Environmental Sciences (1999 -2021)
Member of University Senate (1999 -2021)
Member, University Publications Committee (2007- 2021)
Member University Executive Council (2007- 2011)
Member of University Research Fund – BAP Commission(1999 - 2014)
Director of CENDIM (Center for Disaster Management) (2004- 2007)
Senate Ways and Means (Usul ve Esaslar) Committee (2003-2008)
University Disciplinary Committee; Chair (2000-2008)
Vice Director of the Institute of Environmental Sciences(1987-1993;
1996 - 1999)
Head of Environmental Technology Discipline (1987-1988;1997-1999)
Head of Environmental Sciences Discipline (1988-1991)

CITATIONS: (Web of Science) 5015
(Scopus) 5060
(Google) 7617

WEB of SCIENCE *h* INDEX: 33
SCOPUS *h* INDEX: 32
GOOGLE *h* INDEX: 36

PUBLICATIONS: (Journal Papers – SCI, SCI-E, SSCI only)

- Yufenyuy M, Pircalioglu S, Yenigün O. The asymmetric effect of biomass energy use on environmental quality: empirical evidence from the Congo Basin, *Environment, Development and Sustainability*, 27, 10241-10274, 2025.
- Borges IVG, Musah A, Dutra LMM, Tunali M, Lima CL, Tunali MM,.....Yenigun O, et al. Analysis of the interrelationship between precipitation and confirmed dengue

cases in the city of Recife (Brazil) covering climate and public health information, *Frontiers in Public Health* 12, Article No 1456043, 2024.

- Yufenyuy M, Pircalioglu S, Yenigün O. Dynamic assessment of the impact of agricultural land use change and globalization on environmental quality in the tropical African Rainforest: evidence from the Congo Basin, *Environmental Science and Pollution Research* 31 (1), 1331-1357, 2024.
- Anwar M, Browning E,.....Yenigün O, et al. Coalescing disparate data sources for the geospatial prediction of mosquito abundance, using Brazil as a motivating case study, *Frontiers in Tropical Diseases* , 4, Article No: 1039735, 2023.
- Da Silva CC,Yenigün O, et al. Spatiotemporal forecasting for dengue, chikungunya fever and Zika using machine learning and artificial expert committees based on meta-heuristics. *Research on Biomedical Engineering*, 38:499-537, 2022.
- De Lima CL,Yenigun O, et al. Temporal and Spatiotemporal Arboviruses Forecasting by Machine Learning: A Systematic Review, *Frontiers in Public Health*, 10, Article No 900077, 2022.
- Tunali MM, Myronyuk O, Tunali M, Yenigun O. Microplastic Abundance in Human-Influenced Soils in Recreational, Residential, and Industrial Areas, *Water Air & Soil Pollution*, 233: 433, 2022.
- Musah A, Yenigun O, et al. An Evaluation of the OpenWeatherMap API versus INMET Using Weather Data from Two Brazilian Cities: Recife and Campina Grande, *Data*, 7, 106, 2022.
- M Tunali, AA Radin, S Başbüyük, A Musah, IVG Borges, O Yenigun, et al..., A review exploring the overarching burden of Zika virus with emphasis on epidemiological case studies from Brazil, *Environmental Science and Pollution Research* 28 (40), 55952-55966, 2021.
- Alagöz BA, Yenigün O, Erdinçler A. Towards agricultural waste management: Reuse and energy recovery for biomass, *International Journal of Global Warming*, 23, 138-150, 2021.
- Tunali M, Tunali MM, Yenigün O. Characterization of different types of electronic waste: heavy metal, precious metal and rare earth element content by comparing different digestion methods, *Journal of Material Cycles and Waste Management*, 23, 149-157, 2021.
- Tunali M, Yenigün O. Biosorption of Ag⁺ and Nd³⁺ from single- and multi-metal solutions (Ag⁺, Nd³⁺, and Au³⁺) by using living and dried microalgae, *Journal of Material Cycles and Waste Management*, 23, 764-777, 2021.
- Tunali M, Uzoefuna EN, Tunali MM, Yenigün O. Effect of microplastics and microplastic-metal combinations on growth and chlorophyll a concentration of *Chlorella vulgaris*, *Science of the Total Environment*, 743, Article No: 140479, 2020.
- Alagöz BA, Yenigun O, Erdinçler A. Ultrasound assisted biogas production from co-digestion of wastewater sludges and agricultural wastes: Comparison with microwave pre-treatment. *Ultrasonics Sonochemistry*, 40, 193-200, 2018.
- Türker G, Aydın S, Akyol C, Yenigun O, Ince O, Ince B. Changes in microbial community structures due to varying operational conditions in the anaerobic digestion of oxytetracycline-medicated cow manure. *Applied Microbiology and Biotechnology*, 100, 6469-6479, 2016.
- Alagoz BA, Yenigun O, Erdinçler A. Enhancement of anaerobic digestion efficiency of wastewater sludge and olive waste: Synergistic effect of co-digestion and ultrasonic/microwave sludge pretreatment. *Waste Management*, 46, 182-188, 2015.

- Oral V, Guney M, Kucuker MA, Onay TT, Copty N, Mater B, Yenigun, O. The impact of hazelnuts in land-use changes on soil carbon and in situ soil respiration dynamics, *Journal of Environmental Management*, 129, 341-349, 2013.
- Yenigun O, Demirel B. Ammonia inhibition in anaerobic digestion: A review. *Process Biochemistry*, 48, 901-911, 2013.
- Ozdemir B, Yenigun O. A pilot scale study on high biomass systems: Energy and cost analysis of sludge reduction. *Journal of Membrane Science*, 428- 589-597, 2013.
- Im U, Incecik S, Guler M, Tek A, Topcu S, Unal YS, Yenigun O, Kindap T, Odman MT, Tayanc. Analysis of surface ozone and nitrogen oxides at urban, semi-rural and rural sites in Istanbul, Turkey, *Science of the Total Environment*, 443, 920-931, 2013.
- Karakocak BB, Yenigun O, Toraman RT. An integrated approach to water management in Kayseri: rainwater collection and use in an amusement park. *Water Science and Technology*, 67(5), 1137-1143, 2013.
- Savun B, Neis U, Ince NH, Yenigun O. Pretreatment of sewage sludge by low frequency ultrasound. *Journal of Advanced Oxidation Technologies*, 15(2), 374-379, 2012.
- Erses SY, Oral HV, Onay TT, Yenigun O. A study on olive mill wastewater management in Turkey: A questionnaire and experimental approach, *Resources, Conservation and Recycling*, 60, 64-71, 2012.
- Ozdemir B, Saatci A, Yenigun O. Evaluation of cake filtration biological reactors (CFBR) vs. membrane biological reactors (MBR) in a pilot scale plant, *Desalination*, 288, 135-144, 2012.
- Kocak M, Theodosi C, Zarpas P, Im U, Bougiatioti A, Yenigun O, Mihalopoulos N. Particulate matter (PM10) in Istanbul: Origins, source areas, and potential impact on surrounding regions, *Atmospheric Environment*, 45, 6891-6900, 2011.
- Kucukasik F, Kazak H, Güney D, Finore I, Poli A, Yenigun O, Nicolaus B, Oner ET, Molasses as fermentation substrate for levan production by *Halomonas* sp., *Applied Microbiology and Biotechnology*, 89, No: 6, 1729-1740, 2011.
- Sam S, Kucukasik F, Yenigun O, Nicolaus B, Oner ET, Yukselen MA. Flocculating performances of exopolysaccharides produced by a halophilic bacterial strain cultivated on agro-industrial waste, *Bioresource Technology*, 102, No: 2, 1788-1794, 2011.
- Im U, Poupkou A, Incecik S, Markakis K, Kindap T, Unal A, Melas D, Yenigun O, Topcu S, Odman MT, Tayanc M, Guler M. The impact of anthropogenic and biogenic emissions on surface ozone concentrations in Istanbul. *Science of the Total Environment*, 409, No: 7, 1255-1265, 2011.
- Ozdemir B, Mertoglu B, Yapsakli K, Aliyazicioglu C, Saatci A, Yenigun O. Investigation of nitrogen converters in membrane bioreactor, *Journal of Environmental Science and Health-Part A.*, 46, No: 5, 500-508, 2011.
- Theodosi C, Im U, Bougiatioti A, Zarpas P, Yenigun O, Mihalopoulos N. Aerosol chemical composition over Istanbul. *Science of the Total Environment*, 408, No: 12, 2482-2491, 2010.
- Im U, Markakis K, Unal A, Kindap T, Poupkou A, Incecik S, Yenigun O, Melas D, Theodosi C, Mihalopoulos N. Study of a winter PM episode in Istanbul using the high resolution WRF/CMAQ modeling system. *Atmospheric Environment*, 44, No: 26, 3085-3094, 2010.
- Demirel B, Scherer P, Yenigun O, Onay TT. Production of methane and hydrogen from biomass through conventional and high-rate anaerobic digestion processes.

Critical Reviews in Environmental Science and Technology, **40**, No: 2, 116-146, 2010.

- Yenigun O and Canbulat, T. Turkey's state of the environment through the spectacles of the EU. *The Journal of Interdisciplinary Economics*, **20**, 361-372, 2009.
- Erses S, Onay TT, Yenigun O. Comparison of aerobic and anaerobic degradation of municipal solid waste in bioreactor landfills, *Bioresource Technology*, **99**, No: 13, 5418-5426, 2008.
- Im U, Tayanc M, Yenigun O. Interaction patterns of major photochemical pollutants in Istanbul, Turkey. *Atmospheric Research*, 2008, **89**, No: 4, 382-390, 2008.
- Im U, Onay T, Yenigun O, Kambezidis H, Kaskaoutis D, Antepioglu U, Kassomenos P, Incecik S, Topcu S, Melas D, Papadopoulos A. An overview of forest fires and meteorology in Turkey and Greece. IEEE, 1st International Symposium on Environment Identities and Mediterranean Area, Corte Ajaccio, France, July 10-13, V 1-2, 73-78, 2006.
- Demirel B, Yenigun O. Changes in microbial ecology in an anaerobic reactor. *Bioresource Technology*, **97**(10), 1201-1208, 2006.
- Im U, Tayanç M, Yenigun O. Analysis of major photochemical pollutants with meteorological factors for high ozone days in Istanbul, Turkey, *Water Air and Soil Pollution*, **175**, 335-359, 2006.
- Calli, B., Mertoglu, B., Inanc, B., Yenigun, O. Methanogenic Diversity in Anaerobic Bioreactors under Extremely High Ammonia Levels, *Enzyme and Microbial Technology*, **37**, 448-455, 2005.
- Im Ulas, Yenigun, O., An Application of a Puff Dispersion Model on Power Plant Emissions in Yatagan Region, Turkey. *International Journal of Environment and Pollution*, **23**, No. 3, 314-324, 2005.
- Calli, B., Mertoglu, B., Inanc, B., Yenigun, O. Community Changes During Start-up in Methanogenic Bioreactors Exposed to Increasing Levels of Ammonia. *Environmental Technology*, **26**, 85-91, 2005.
- Demirel, B., Yenigun, O., Onay, T. Anaerobic Treatment of Dairy Wastewaters: A Review, *Process Biochemistry*, **40**, 2583-2595, 2005.
- Callı, B., Mertoglu, B., Inanc, B., Yenigun, O. Effects of High Free Ammonia Concentrations on the Performances of Anaerobic Bioreactors. *Process Biochemistry*, **40**, 1285-1292, 2005.
- Demirel, B., Yenigun, O., Anaerobic Acidogenesis of Dairy Wastewater: The Effects of Variations in Hydraulic Retention Time with No Ph Control. *Journal of Chemical Technology and Biotechnology*, **79**, 755-760, 2004.
- Gurbuz, S., Kıran-Cılız N., Yenigun, O. Cleaner Production Implementation through Process Modifications for Selected SMES in Turkish Olive Oil Production. *Journal of Cleaner Production*, **12**, 613-621, 2004.
- Çallı, B., Mertoğlu, B., Taş, N., Inanç, B., Yenigün, O. and Oztürk, I. Investigation of Variations in Microbial Diversity in Anaerobic Reactors Treating Landfill Leachate. *Water Science and Technology*, **48**, No:4, 105-112, 2003.
- Demirel, B., Yenigün, O. The Effects of Change in Volatile Fatty Acid (VFA) Composition on Methanogenic Upflow Filter Reactor (UFAF) Performance, *Environmental Technology*, **23**, No:10, 1179-1188, 2002.

- Atay, Z., Yenigün, O., Asutay, M. Sorption of Anionic Surfactants SDS, AOT and Cationic Surfactant Hyamine 1622 on Natural Soils. *Water, Air and Soil Pollution*, **136**, 55-67, 2002.
- Saysel, A.K., Barlas, Y., Yenigün, O. Environmental Sustainability in an Agricultural Development Project: A System Dynamics Approach, *Journal of Environmental Management*, **64**, No: 3, 247-260, 2002.
- Demirel B., Yenigün, O. Two Phase Anaerobic Digestion Process: A Review, *Journal of Chemical Technology and Biotechnology*, **77**, No: 7, 743-755, 2002.
- Ince, O., Kasapgil Ince, B., Yenigün, O. Determination of Potential Methane Production Capacity of a Granular Sludge from a Pilot-Scale Upflow Anaerobic Sludge Blanket Reactor Using Specific Methanogenic Activity Test. *Journal of Chemical Technology and Biotechnology*, **76**, 573-578, 2001.
- Bekbölet, M., Yenigün, O., Yücel, İ. Sorption Studies of 2,4-D on Selected Soils. *Water, Air and Soil Pollution*, **111**, No: 1/4, 75-88, 1999.
- Demirel, B., Yenigün, O., Bekbölet, M. Removal of Cu, Ni and Zn from Wastewaters by the Ferrite Process. *Environmental Technology*, **20**, No: 9, 963-970, 1999.
- Yılmaz, G., Yenigün, O. Two-Phase Anaerobic Treatment of Cheese Whey. *Water Science and Technology*, **40**, No: 1, 289-295, 1999.
- Tayanç, M., Dalfes, N., Karaca, M., Yenigün, O. A Comparative Assessment of Different Methodologies for Detecting Inhomogeneities in Turkish Temperature Dataset, *International Journal of Climatology*; **18**, No:5, 561-578, 1998.
- Tayanç, M., Karaca, M., Yenigün, O. Annual and Seasonal Air Temperature Trend Patterns of Climate Change and Urbanization Effects in Relation with Air Pollutants in Turkey, *Journal of Geophysical Research-Atmospheres*, **102**, No: D2, 1909-1919, 1997.
- Kıran, N., Yenigün, O., Albek, E., Börekçi, O. Wind Induced Circulations of the Black Sea, *Water Science and Technology*, **32**, No: 7, 87-93, 1996.
- Yenigün, O., Kızılgün, F., Yılmaz, G. Inhibition Effects of Zinc and Copper on Volatile Acid Production during Anaerobic Digestion, *Environmental Technology*, **17**, 1269-1274, 1996.
- Çalgan, D., Yenigün, O. Toxicity of Arsenic, Cadmium and Nickel on Cyanobacterium *Anabaena cylindrica*, *Environmental Technology*, **17**, 533-540, 1996.
- Yenigün, O., Sohtorik, D. Calculations with the level II fugacity model for selected organophosphorus insecticides, *Water, Air and Soil Pollution*, **84**, 175-185, 1995.
- Ince, N., Yenigün, O. A Critical Review of the Water Quality Classification System in Turkey: A Case Study on Meriç Basin, *Environmental Management*, **19**, 601-607, 1995.
- Yenigün, O., Köksal, G., Yılmaz, G. Nickel and Cadmium Inhibition in Acidogenesis During Anaerobic Digestion, *Journal of Environmental Science and Health-Part A Environmental Science and Engineering*, **A30**(5), 981-987, 1995.
- Gunn, D.J., Yenigün, O. A Model for Tidal Motion and Level in the Tay Estuary, *Proceedings of the Royal Society of Edinburgh Section B-Biological Sciences*, **92**, 257-273, 1987.
- Gunn, D.J., McManus, J., Yenigün, O. Partial Validation of a Model for Tidal Variation in the Tay, *Proceedings of the Royal Society of Edinburgh Section B-Biological Sciences*, **92**, 275-283, 1987.

- Gunn, D.J., Yenigün, O. Estimation of Dispersion in Estuaries by a Self Consistent Method, *Estuarine, Coastal and Shelf Science*, **21**, 257-272, 1985.
- Gunn, D.J., Yenigün, O. Modelling of Tidal Motion in Shoaling Waters; the Estuary of Milford Haven, *Estuarine, Coastal and Shelf Science*, **21**, 337-356, 1985.